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EXAMINER	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/706,617	WADA, SHINYA	
	Examiner	Art Unit	
	ROBERT TIMBLIN	2167	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 September 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16 and 20-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16 and 20-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

This office action corresponds to application 10/706,617 filed 11/12/2003.

Response to Amendment

Claims 1 and 23 have been amended 9/24/2008. Accordingly, claims 1-16 and 20-25 are pending in this application. Response to arguments begin on page 25 of this document.

Claim Objections

Claim 1 is objected to because lines 6 and 8 of this claim recite "the computer process". The examiner submits that this phrase should be worded as "the computer processor" as to become consistent with the preamble and further to avoid antecedent basis issues.

Claim 23 is similarly objected to for the same rationale given to claim 1 because line 5 of Claim 23 exemplifies the same issue.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required:

The computer-readable recording medium as found in claims 20-22 and 25 should be clearly defined in the specification as a statutory medium (i.e. precluding storage on carrier waves, signals, etc.) so to enable the scope of the medium to be realized.

In the remarks submitted 9/24/2008, Applicant traverses the objection to the specification. The Examiner respectfully maintains the objection as the computer-readable recording medium is not clearly defined in the specification. Applicant further submits that the present application conforms fully with the requirements of 37 C.F.R. 1.75 (d)(1) and MPEP section 608.01(o). The Examiner traverses and submits that the present application does not conform to such requirements.

Specifically, MPEP section 608.01(o) states:

> *Basis for Claim Terminology in Description*
> *The* ***meaning*** *of every term used in any of the claims should be apparent from the descriptive portion of the specification* ***with clear disclosure as to its import****; and* ***in mechanical cases, it should be identified in the descriptive portion of the specification by reference to the drawing,*** *designating the part or parts therein to which the term applies.*

The Examiner respectfully submits that the above highlighted portions have not been met. Although "the recording medium having stored computer programs therein" is briefly mentioned in the disclosure (page 7 line 30 to page 8 line 1) there is no clear disclosure of the recording medium and further there is no references to the drawings corresponding to the recording medium.

Accordingly, the objection to the specification is maintained.

35 USC § 101

In light of the correcting amendments, the previous section 101 rejections to claims 1-9, 23, and 26-27 have been withdrawn. Specifically, these apparatus claims now recite the use of a computer processor actively performing intended functions. Further, the processor as supported by a CPU (e.g. see the present disclosure, page 12 lines 6-10) directly indicates a hardware device of a statutory machine and therefore, the claims are NOT considered software per se.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 3-6, 9, 10, 12-14, 16, and 20-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki et al. (Aoki) (U.S. Patent 6,253,218) in view of Brosnan et al. (Brosnan hereafter) U.S. Patent Application 2004/0002380.

With respect to claim 1, Aoki teaches in at least embodiment 1 (starting line 30 of column 8 and figures 1-13) a file processing apparatus comprising a computer processor, said file processing apparatus including:

an attribute input unit (102) which acquires a value of an attribute (col. 2 line 45) for at least one file (col. 2 line 10) in order to represent a value of a predetermined attribute for an

intended file (as a data characteristics detecting section 102 that corresponds to the attribute input unit col. 8 lines 46-50 and figure 1, 108) as a (col. 20 line 30-67; i.e. judging density suggests a weight);

a comparison processing unit (judging section 43) operative using the computer process (col. 8 line 58) to compare the value of the attribute with a reference value (as data characteristics detecting section extracts attribute values of data from database, such as the date of creation and the data model generating section generates a 3-D data model according to the extracted attribute values of the data. The data model placing section calculates a display position of the 3-D data model on the 3-D coordinate space and 3-D data model set at a position, which visually represents the attribute such as the data of generation of the data (embodiment 1, column 9). By these teachings, a comparison had to have been made of the date of creation of the data with the date represented by the original point in the 3-D space for determining the display position)).

a position determining unit (106) operative using the computer processor to set a relative display position of a predetermined object (col. 20 line 43 and at least figures 46-47) that represents the weight (i.e. density) of the attribute, wherein the relative display position is set based on a result obtained from said comparison processing unit (judging section 43).

a display processing unit (107) which represents the value of the attribute (col. 2 line 45) for visual display in terms of whether the weight of the predetermined object is heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items), wherein the display position of the

predetermined object is set by said position determining unit (as the display section outputs the placing result; col. 9 lines 23-25), and

the relative display position (fig. 2; e.g. the z-axis) indicates whether the object (figure 2; e.g. data models 203 representing files) is comparatively heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items) with a difference in the display position in the direction of the virtual force (figure 2; e.g. the depth/shallowness of the data object with respect to the z axis indicates a display position).

Aoki fails to explicitly teach wherein the display position indicates that a virtual force is exerted on the object at least in one direction.

Brosnan, however, teaches the display position indicates that a virtual force is exerted on the object at least in one direction (0073 and 0130) for simulating the display of objects on a screen as determined by their properties (see also Brosnan, 0138).

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16). Further, the virtual force used in Brosnan would have enabled a user of Aoki to understand the characteristics of each data item in a relationship among the data.

With respect to claim 3, Aoki teaches a file processing apparatus according to claim 1, wherein said attribute input unit acquires values of the attribute for a plurality of files (detecting data), said comparison processing unit sets a value of an attribute for at least one of the plurality of files to the reference value, said position determining unit sets relative display positions of a plurality of objects corresponding to the plurality of files, respectively, and wherein said display processing unit displays the plurality of files at the respective display positions and visually represents the comparison of weights of the files via another object representative of the measurement of the weights (col. 9, lines 1-10 and figures 1-2) Therein data characteristics and data attributes are detected. After, a 3-D data model is determined by the obtained information.

With respect to claim 4, Aoki teaches a file processing apparatus according to claim 3 wherein said comparison processing unit sets, as the reference value, a size of a storage area that stores at least one file, said position determining unit sets a relative display position of an object indicative of the storage area according to the size of the storage area, and wherein said display processing unit visually expresses the comparison of data size between the at least one file and the storage area via the another object. As seen in embodiment 1 starting in column 8 and specifically in col. 9 lines 5-15 as a display pattern is based upon data characteristics which correlate to reference values.

With respect to claim 5, Aoki teaches a file processing apparatus according to claim 1, wherein said attribute input unit acquires values of an attribute for a plurality of files and said

comparison processing unit classifies the plurality of files into a plurality of groups according to the respective values of the attribute, and wherein said display processing unit displays the object in an appearance corresponding to the respective groups as categories (col. 9 line 20).

With respect to claim 6, Aoki teaches a file processing apparatus according to claim 1, wherein said attribute input unit acquires values of an attribute for a plurality of files (col. 9 lines 5-10), said comparison processing unit classifies the plurality of files into a plurality of classes and sequentially compares the values of an attribute for each class (col. 9 line 20), wherein, after relative display positions are temporarily determined respectively as positions that initially display objects for the plurality of files (figure 2), said position determining unit sequentially updates the relative display positions in a manner such that comparison results for each class are reflected for each class, and wherein said display processing unit varies the display of the objects according to said updating after the plurality of files are displayed at the temporally determined relative display positions (taught at least by embodiment 15 in column 26 and figure 83).

With respect to claim 9, Aoki teaches a file processing apparatus according to claim 1 further including:

an instruction receiving unit which receive an instruction from a user intending to change the display (abstract and col. 3 line 8-10; i.e. a user directing change) position of the object as an input section (108 of figure 1); and

an effect generator (figure 13) which causes, based on the instruction, said position determining unit and said display processing unit to process a change in any of position, shape and appearance of the object (as a viewpoint changing section 109 of figure 1).

With respect to claim 10 Aoki teaches a method of processing files, including:

setting a relative display position of a predetermined object that symbolically represents the files in terms of whether the weight thereof is heavy or light (col. 20 line 67; i.e. density suggests a concept of heavy/light weight), based on a value of a predetermined attribute for an intended file, in order to represent the value of a predetermined attribute therefor by using a concept of weight (col. 9 lines 15-20); and

representing visually the weight by displaying the object at the relative display position on a screen (col. 9 lines 23-25)

the relative display position (fig. 2; e.g. the z-axis) indicates whether the object (figure 2; e.g. data models 203 representing files) is comparatively heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items) with a difference in the display position in the direction of the virtual force (figure 2; e.g. the depth/shallowness of the data object with respect to the z axis indicates a display position).

Aoki fails to explicitly teach the relative display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction.

Brosnan, however, teaches the relative display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction (0073 and 0130) for

simulating the display of objects on a screen as determined by their properties (see also Brosnan, 0138).

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 12, Aoki teaches A method of processing files, including:

acquiring values (102; i.e. detecting data characteristics) of a predetermined attribute (col. 2 line 45) for a plurality, of intended files (col. 2 line 10) in order to represent the values of a predetermined attribute therefor by using a concept of weight (i.e. density; col. 20);

setting (108), for each of the plurality of files (col. 2 line 10), a relative display position of a predetermined object that represents symbolically the files (col. 3 line 5-10, and at least figures 1, 2, and 46-47) in terms of whether the weight thereof is heavy or light (i.e. density, col. 20 line 30-67), based on the values of a predetermined attribute (col. 2 line 45); and

displaying the objects of the plurality of files at the respective display positions on a screen (drawing reference 107), and expressing visually comparison of the weights of the objects via another object that symbolizes weight measurement (figures 44-47; i.e. denser objects are represented deeper on the z-axis), wherein

the relative display position (fig. 2; e.g. the z-axis) indicates whether the object (figure 2; e.g. data models 203 representing files) is comparatively heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items) with a difference in the display position in the direction of the virtual force (figure 2; e.g. the depth/shallowness of the data object with respect to the z axis indicates a display position).

Aoki fails to explicitly teach the relative display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction.

Brosnan, however, teaches the relative display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction (0073 and 0130) for simulating the display of objects on a screen as determined by their properties (see also Brosnan, 0138).

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 13, Aoki teaches a method of processing files according to claim 12, wherein said acquiring further acquires a size of a storage area that stores at least one file

(col. 9 lines 5-10), and said setting sets the relative display position of at least one object corresponding to the at least one file, based on a comparison result obtained by comparing a data size between the at least one object and the storage area (embodiment 1, column 9), and wherein said displaying and expressing represents visually the comparison result via the another object (display section 107).

With respect to claim 14, Aoki teaches a method of processing files, including:

acquiring values of a predetermined attribute for a plurality of files, in order to represent the values of a predetermined attribute for intended files (col. 8 lines 46-50 and figure 1, 108, 102) by using a concept of weight (i.e. density, col. 20);

setting a temporary sequence for the plurality of files (figure 2 and col. 9 lines 1-20; 3-D model);

determining, based on the temporary sequence (figure 2), a temporary display position of a predetermined object (figures 44-47) that symbolically represents the files in terms of whether the weight thereof is heavy or light (i.e. density, col. 20);

displaying an object that corresponds to the plurality of files (col. 2 line 10), at the temporary display position on a screen (figure 2, 202, 203);

comparing the values of a predetermined attribute between adjacent files in the temporary sequence (embodiment 1, column 9);

updating the display position based on a comparison result obtained from said comparing (col.34 lines 9-20); and

representing visually the weight thereof by varying display contents according to said updating (as a display pattern determined based on size; col. 9 lines 8-10), wherein

the temporary display position (fig. 2; e.g. the z-axis) indicates whether the object (figure 2; e.g. data models 203 representing files) is comparatively heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items) with a difference in the display position in the direction of the virtual force (figure 2; e.g. the depth/shallowness of the data object with respect to the z axis indicates a display position).

Aoki fails to explicitly teach the temporary display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction.

Brosnan, however, teaches the temporary display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction (0073 and 0130) for simulating the display of objects on a screen as determined by their properties (see also Brosnan, 0138).

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 16, Aoki teaches a method of processing files according to claim 10, further including: acquiring an instruction from a user who intends to cause a display position of the object to be changed; and changing at least one of position, shape and appearance of the object, based on the instruction. This limitation is taught by Aoki wherein a user inputs a command for changing the view by means of the input section (embodiment 1, column 9).

With respect to claim 20, Aoki teaches A computer-readable recording medium which stores a program executable by a computer, the program including the functions of:

setting a relative display position (fig. 47) of a predetermined object (drawing reference 208) that symbolically represents the files (e.g. files in figure 47) in terms of whether the weight thereof is heavy or light (i.e. density, suggesting weight; col. 20, lines 24-65), based on a value of a predetermined attribute for an intended file (figure 2, drawing reference 202), in order to represent the value of a predetermined attribute therefor by using a concept of weight (i.e. density, col. 20); and

representing visually (drawing reference 208) the weight by displaying the object at the relative display position on a screen (col. 20 lines 30-46; i.e. Aoki discloses placing data in subspaces according to density).

Aoki fails to explicitly teach the relative display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction.

Brosnan, however, teaches the relative display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction (0073 and 0130) for

simulating the display of objects on a screen as determined by their properties (see also Brosnan, 0138)

the relative display position (fig. 2; e.g. the z-axis) indicates whether the object (figure 2; e.g. data models 203 representing files) is comparatively heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items) with a difference in the display position in the direction of the virtual force (figure 2; e.g. the depth/shallowness of the data object with respect to the z axis indicates a display position).

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 21, Aoki teaches A computer-readable recording medium which stores a program executable by a computer, the program including the functions:

acquiring values (102; i.e. detecting data characteristics) of a predetermined attribute (col. 2 line 45) for a plurality, of intended files (col. 2 line 10) in order to represent the values of a predetermined attribute therefor by using a concept of weight (i.e. density; col. 20);

setting (108), for each of the plurality of files (col. 2 line 10), a relative display position of a predetermined object that represents symbolically the files (col. 3 line 5-10, and at least figures 1, 2, and 46-47) in terms of whether the weight thereof is heavy or light (i.e. density, col. 20 line 30-67), based on the values of a predetermined attribute (col. 2 line 45); and

displaying the objects of the plurality of files at the respective display positions on a screen (drawing reference 107), and expressing visually comparison of the weights of the objects via another object that symbolizes weight measurement (figures 44-47; i.e. denser objects are represented deeper on the z-axis), wherein

the relative display position (fig. 2; e.g. the z-axis) indicates whether the object (figure 2; e.g. data models 203 representing files) is comparatively heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items) with a difference in the display position in the direction of the virtual force (figure 2; e.g. the depth/shallowness of the data object with respect to the z axis indicates a display position).

Aoki fails to explicitly teach the relative display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction.

Brosnan, however, teaches the relative display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction (0073 and 0130) for simulating the display of objects on a screen as determined by their properties (see also Brosnan, 0138).

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the

present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 22, Aoki teaches A computer-readable recording medium which stores a program executable by a computer, the program including the functions of:

acquiring values of a predetermined attribute for a plurality of files, in order to represent the values of a predetermined attribute for intended files (col. 8 lines 46-50 and figure 1, 108, 102) by using a concept of weight (i.e. density, col. 20);

setting a temporary sequence for the plurality of files (figure 2 and col. 9 lines 1-20; 3-D model);

determining, based on the temporary sequence (figure 2), a temporary display position of a predetermined object (figures 44-47) that symbolically represents the files (col. 2 line 10) in terms of whether the weight thereof is heavy or light (i.e. density, col. 20);

displaying an object that corresponds to the plurality of files (col. 2 line 10), at the temporary display position on a screen (figure 2, 202, 203);

comparing the values of a predetermined attribute between adjacent files in the temporary sequence (embodiment 1, column 9);

updating the display position based on a comparison result obtained from said comparing (col.34 lines 9-20); and

representing visually the weight thereof by varying display contents according to said updating (as a display pattern determined based on size; col. 9 lines 8-10), wherein

the temporary display position (fig. 2; e.g. the z-axis) indicates whether the object (figure 2; e.g. data models 203 representing files) is comparatively heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items) with a difference in the display position in the direction of the virtual force (figure 2; e.g. the depth/shallowness of the data object with respect to the z axis indicates a display position).

Aoki fails to explicitly teach the temporary display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction.

Brosnan, however, teaches the temporary display position indicates that a virtual force is exerted on the object displayed on the screen at least in one direction (0073 and 0130) for simulating the display of objects on a screen as determined by their properties (see also Brosnan, 0138).

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 23, Aoki teaches a file processing apparatus comprising a computer processor, said file processing apparatus including;

an attribute input unit (102) adapted to acquire a value of an attribute (col.2 line 46) for at least one file (col. 2 line 10) in order to represent the value of the attribute by using a concept of density (as thickness; col. 10, line 10, col. 11 line 24-27, col. 24 lines 16-20 and figures 8, 46, 47, and density; col. 20, line 30-45 and line 55-65);

a position determining unit (106) operative using the computer process to set a relative display position of a predetermined object (drawing reference 208, figure 47) representing the at least one file (col. 2 line 10), the relative display position representing the value of the attribute (figure 8 and col. 10 line 6-15; i.e. size attribute) by comparing the value in terms of the density (col. 20 line 38) representing the value of the attribute by comparing the value in terms of the density (figure 44, 47, reference 208 and col. 21 lines 16-22),

a display processing unit (107) adapted to visually represent the predetermined object in the relative display position by displaying the object at the relative display position on a screen (col. 9 lines 23-25).

Aoki fails to expressly teach having a virtual buoyant force exerted on the predetermined object displayed on the screen in at least one direction. Brosnan, however, teaches having a virtual buoyant force exerted on the predetermined object displayed on the screen in at least one direction (0073, 0130) for simulating the movement of objects in a display (Brosnan, 0130 first two lines).

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the

present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 24, Aoki teaches a method of processing files, including:

acquiring values of a predetermined attribute for a plurality of intended files (102, detecting characteristics) in order to represent the values of a predetermined attribute therefor by using a concept of density (as thickness; col. 10, line 10, col. 11 line 24-27, col. 24 lines 16-20 and figures 8, 46, 47, and density; col. 20, line 30-45 and line 55-65);

setting, for each of the plurality of files, a relative display position of a predetermined object that represents symbolically the files in terms of whether the density thereof is high or low, based on a value of the predetermined attribute (figure 44, 47, reference 208 and col. 21 lines 16-22); and

displaying the objects representing the plurality of files at the respective display positions on a screen, and expressing visually a comparison of the density of the objects with each other object (col. 9 lines 23-25 and figures 46-47).

Aoki fails to expressly teach a virtual buoyant force exerted on the predetermined object displayed on the screen in at least one direction. Brosnan, however, teaches virtual buoyant force exerted on the predetermined object displayed on the screen in at least one direction (0073, 0130) for simulating the movement of objects in a display.

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 25, Aoki teaches a computer-readable recording medium which stores a program executable by a computer, the program including the functions of:

acquiring values of a predetermined attribute for a plurality of intended files (102, detecting characteristics) in order to represent the values of the predetermined attribute therefor by using a concept of density (as thickness; col. 10, line 10, col. 11 line 24-27, col. 24 lines 16-20 and figures 8, 46, 47, and density; col. 20, line 30-45 and line 55-65);

setting, for each of the plurality of files, a relative display position of a predetermined object representing symbolically the files in terms of whether the density thereof is high or low, based on the values of the predetermined attribute (figure 44, 47, reference 208 and col. 21 lines 16-22); and

displaying on a screen the objects of the plurality of files at the respective display positions, and expressing visually comparison of the density of the objects with each other object (col. 9 lines 23-25 and figures 46-47)

the display position (fig. 2; e.g. the z-axis) indicates whether the object (figure 2; e.g. data models 203 representing files) is comparatively heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items) with a difference in the display position in the direction of the virtual force (figure 2; e.g. the depth/shallowness of the data object with respect to the z axis indicates a display position).

Aoki fails to expressly teach a virtual buoyant force exerted on the predetermined object displayed on the screen in at least one direction.

Brosnan, however, teaches virtual buoyant force exerted on the predetermined object displayed on the screen in at least one direction (0073, 0130) for simulating the movement of objects in a display.

In the same field of endeavor, (i.e. displaying objects according to their attributes), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the virtual forces, as provided by Brosnan, would have given Aoki's system better visualization of data items represented on a screen for the benefit of a user to better understand the placement of data relative to other data and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16).

With respect to claim 26, Aoki teaches the file processing apparatus according to Claim 1, wherein the attribute includes a data size (col. 9 line 5-8).

With respect to claim 27, Aoki teaches the file processing apparatus according to Claim 1, wherein the attribute includes at least one of a preparation date, a date of file updating, an importance, a type of file, a number of files contained in a folder, a the number of sub-folders contained in the folder, a count of file updating, a frequency of file updating (col. 9 line 19; i.e. the date of creation represents at least the preparation date).

Claims 2 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aoki and Brosnan as applied to claims 1, 3-6, 9, 10, 12-14, 16, and 20-25 above further in view of Vaananen et al. (Vaananen hereinafter) U.S. Patent Application 2002/0175896 A1.

With respect to claim 2 and similar claim 11, Aoki and Brosnan fail to teach a file processing apparatus according further including an inclination detector which detects inclination of a predetermined region in the file processing apparatus operated by a user, wherein according to the inclination detected by said inclination detector said position determining unit varies the relative display position and the direction in which the force is exerted.

Vaananen, however, teaches this limitation as element 50 of figures 2 and 5 and paragraph 0078. Therein an accelerator sensor is disclosed to measure tilting movements.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the teachings of Vaananen would have provided Aoki-Brosnan's system with the ability to vary a relative display position to obtain an easier to use user interface. Vaananen suggests in paragraph 0009 a need

for a less "slow and awkward" method of data browsing. Aoki suggests in column 2, lines 2-4 a need to be able to access and manage data in a straightforward manner.

Claims 7, 8, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of Aoki and Brosnan as applied to claims 1, 3-6, 9, 10, 12-14, 16, and 20-25 above further in view of Adler et al ("Adler" hereinafter) U.S. Patent 6,340,957.

With respect to claim 7 and similar claims 8 and 15, Aoki and Brosnan teach a file processing apparatus as applied to claims 1, 3-6, 9, 10, 12-14, 6, and 20-25 above.

Aoki and Brosnan fail to teach a file processing apparatus further including a vibration detector which detects a swaying motion at a predetermined region of the file processing apparatus operated by a user, wherein said comparison processing unit performs a comparison processing when the motion is detected, and said position determining unit updates the relative display position according to the result obtained from said comparison processing unit.

Adler, however, teaches these limitations from at least (col. 15 lines 15-22). Therein displayed data is manipulated according to vibration for accessing and managing data in a straightforward manner.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because this feature of Adler would have satisfied Aoki-Brosnan's need for accessing and managing data in a straightforward manner which is needed by Aoki (column 2 line 12-17 and column 12 lines 15-

23). Further, data would be displayed accordingly in response to detecting a vibration for the benefit of allowing the data to be readily visible as is needed by Aoki.

Response to Arguments

Applicant's remarks filed in the reply dated 9/24/2008 ('reply') have been fully considered but they are not persuasive. Initially, Examiner incorporates previous response to arguments presented in the Office Action dated 4/25/2008. Further responses to the present remarks are in the following:

Applicant argues on page 14 of the reply that the prior art does not tech setting a relative display position of a predetermined object that symbolically represents the files in terms of whether the weight thereof is heavy or light.

The Examiner disagrees with Applicant and maintains that the combination of prior art used teaches at least this aspect. Specifically, Aoki teaches the placement of an object on the screen (e.g. embodiment 1 and column 9 as well as figures 2, 3, and 27). Further, Aoki teaches representing the files in terms of whether the weight thereof is heavy or light (figure 2 and col. 2 line 40-47; e.g. the depth on the z axis depicting an attribute of each item within the space in comparison with the other items), based on a value of a predetermined attribute for an intended file (as a data characteristics detecting section 102 that corresponds to the attribute input unit col. 8 lines 46-50 and figure 1, 108). In further explanation, the Examiner submits that Aoki teaches the display pattern which is determined by various attributes of a file including identifier, size, format, etc. (col. 9 line 6-10). Accordingly, with this teaching, Aoki teaches predetermined

attributes (e.g. associated metadata) for an intended file to cause a display position relative to other files (e.g. see figures 2, 3, and 27).

Applicant further argues that Aoki does not disclose signifying the attribute as a particular weight as presently claimed (reply, bottom of page 14). Examiner disagrees and maintains that Aoki teaches this claimed element. For example, figure 27 shows objects representing documents and, in this figure, the date controls the position on the Z axis (see further, col. 9 line 30-36 and col. 16 line 36-40). With this, the Examiner submits that an attribute of a file that controls the display represents a "weight". In other words, because the attribute (in this case the "date") controls the display of an object in relation to other dated objects, that attribute represents a "weight" of that object. Aoki further describes light and heavy by adjusting the data models accordingly. Furthermore, as other embodiments may include the size of a file, and the display position is adjusted accordingly (e.g. Aoki, col. 9 line 8), Aoki again describes representing the weight of an object in terms of whether it is heavy or light.

Applicant further argues that the Office Action does not account for how the group figure 208 of Aoki relates to an attribute/attribute value. The Examiner disagrees and submits that Aoki teaches the claimed density in col. 11 line 24-26 to represent size. Here, the thickness (i.e. thickness can also be considered an indication of "density") of a data model is generated based on data size. For example, a magnification is computed based on the number of pages (col. 11 line 26-27). Aoki further teaches that the number of pages could be an attribute of an image (e.g. col. 42 line 5-6 and col. 49 line 45-46). Further, the Examiner submits that Aoki teaches the density of object 208 in col. 20 lines 24-67 and figures 46-47. Herein, it appears that pages are

gathered in a subspace and are generated into an object 208 that represents a dense object. Because pages are of a file (e.g. an image) and that the pages may represent the thickness (or density) of an object (file), the Examiner submits that Aoki further describes displaying a weight in terms of whether an object is heavy or light.

Applicant also argues on page 16 of the reply (last paragraph) that Aoki fails to teach or suggest the feature of exerting a virtual force on the object as presently claimed. As noted in the rejection, Aoki is seen to lack this element, however, Brosnan teaches this aspect. The Examiner summarily submits that Aoki teaches a direction (e.g. a Z axis) while Brosnan teaches the claimed virtual force exerted on an object.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992).

In this case, both references relate to the field of object display. Aoki teaches the display of file objects (e.g. data models) while Brosnan teaches the display of gaming objects. Further, it would have been obvious to combine the two references because the virtual forces (*teaching*), as provided by Brosnan, would have given Aoki's system better visualization of data items

represented on a screen for the benefit of a user to better understand the placement of data relative to other data (*motivation*) and furthermore making it easier for a user to manage that data (need shown by Aoki at col. 2 line 10-16 (*suggestion*). Further, the virtual force used in Brosnan would have enabled a user of Aoki to understand the characteristics of each data item in a relationship among the data (*motivation*).

Accordingly, Applicant's argument pertaining to the combination of references (page 17 of the reply) is respectfully found unpersuasive and traversed.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TIMBLIN/

Examiner, Art Unit 2167

/John R. Cottingham/

Supervisory Patent Examiner, Art Unit 2167